



National Park Service

Natural Resource Quarterly | Winter 2021

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Natural Resource Quarterly | Winter 2021

Newsletter of Natural Resources in the National Capital Area

In This Issue: Beech Tree Basics, Sea Level Rise in DC, Bobwhites at Manassas, Submerged Aquatic Vegetation, Farewell Phragmites!, plus New Reports on I&M Bird Monitoring, Water Quality in Young's Branch, Bats and White Nose Syndrome, and more!

Beech Tree Basics

American beech (*Fagus grandifolia*), the most common tree species in National Capital Area parks, is currently facing the emerging threat of Beech Leaf Disease (BLD).

BLD was confirmed in Prince William Forest Park in 2021. The disease attacks the buds of beech trees, damaging leaves, and



eventually killing the buds entirely. Infected trees die over several years as the number of healthy leaves declines. Since the disease was first spotted in Cleveland in 2012, it has been the subject of much study.

Read more at: <https://www.nps.gov/articles/000/beech-trees-in-the-national-capital-area.htm>

[Photo: Healthy American beech trees at Rock Creek Park. Credit: NPS/Sam Sheline]

Sea Level Rise in DC: Current and Future



17.7 Feet of Water Swamp D.C.

At the height of American involvement in World War II abroad, Washingtonians were fighting a battle of their own right here in DC. Over a three day span in October 1942, 5.4 inches of rain fell on the city. In addition to the local rainfall, two more torrential downpours descended upstream of DC in both the Blue Ridge Mountains and the Shenandoah Valley. The result was a 17.7-foot crest of water charging down the Potomac towards the city. Workers raced to erect a sandbag dike at 17th Street and Constitution Avenue, but

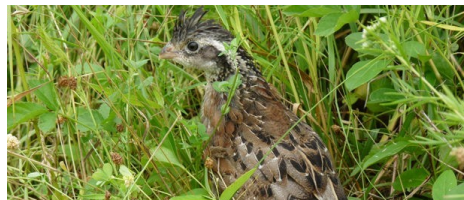
at the height of the storm, a large part of the southwest of the city was flooded, including much of Navy Yard. Many were evacuated across the city, as water from swollen waterways flooded homes.

Read more at: <https://www.nps.gov/articles/000/sea-level-rise-in-the-dc-area.htm>

[Photo: Aerial view looking south across the Anacostia River during the Potomac River flood, October 1942. Credit: Navy Yard Historical Center through Library of Congress]

Bobwhite Quail at Manassas

The Wildlife Society recently published the article, "Battling to help bobwhite endure climate change" by Allison Hay, Biologist at Manassas National Battlefield Park. It describes how natural resource



managers at Manassas protect the bobwhite quail (*Colinus virginianus*) by conserving native grasslands. However, changes in climate are likely to cause invasive plants to outcompete native plants, threatening the bobwhite's habitat. That's why park managers are working to protect the bobwhite by building a database of native plants and removing invasive plants. <https://wildlife.org/battling-to-help-bobwhite-endure-climate-change/>

[Photo: Juvenile bobwhite quail. Credit: NPS/Bryan Gorsira]

Farewell Phragmites!



The NCA Invasive Plant Management Team (IPMT) recently completed annual treatment of *Phragmites australis* (common reed) along the Potomac River sites in the George Washington Memorial Parkway including Roaches Run, Daingerfield Island, and Jones Point. Three large populations were significantly reduced in size. Ronald Reagan Washington National Airport authorities also completed at least one phragmites treatment in 2021.

On September 11, 2021 Washington Post Columnist John Kelly wrote a story about ongoing restoration work at Roaches Run Waterfowl Sanctuary that extensively quoted GWMP Superintendent Charles Cuvelier: [Roaches Run gets new fences - The Washington Post](#)

[Photo: IPMT crew members in the marsh at Roaches Run with the Washington Monument in the background. From left to right: Michael Inlow, Linnea Stewart, and IPMT Team Leader Nathan (Nate) Finney. Credit: NPS/Nate Finney]

Two Projects Restoring Native Submerged Aquatic Vegetation in the Anacostia and Potomac



Submerged aquatic vegetation (SAV) plays a number of critical roles in marine, estuarine, and freshwater ecosystems. SAV provides food and habitat for various species of waterfowl and fish, helps stop erosion, and allows sediment to settle for cleaner



water. Additionally, SAV removes nutrient pollution from the water and adds needed oxygen, helping to prevent dreaded algal blooms that can kill organisms in the aptly named dead zones.

Since the late 20th century, SAV in the Chesapeake Bay watershed has declined due to a combination of reduced water quality and extreme weather events,

such as hurricanes. Two recently funded US Army Corps of Engineers (USACE) and National Park Service (NPS) projects, both facilitated through the Chesapeake Watershed Cooperative Ecosystem Studies Unit (CESU), seek to restore native SAV to portions of the Anacostia and Potomac Rivers near Washington DC through two approaches.

Read more at: <https://chwacesu.org/native-submerged-aquatic-vegetation-sav-restoration-chwa-cesu-projects-initiated-in-anacostia-and-potomac-rivers/>

[Photo: Wild celery (*Vallisneria americana*). Credit University of Maryland Center for Environmental Science]

I&M Reports: Birds and Water Quality

A **Forest Bird Monitoring report** from NCRN Inventory & Monitoring (I&M), covering trend data from 2007-2017 is now available at:

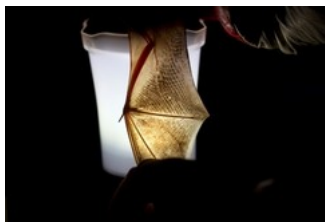
<https://irma.nps.gov/DataStore/Reference/Profile/2287175>

I&M also released a **new report on Trends in water quality in Youngs Branch, Manassas National Battlefield Park** based on long-term I&M stream water quality monitoring ongoing since 2005.



[Photo: NCRN bird monitoring at Rock Creek Park. Credit: NPS/Nortrup]

Report: Bat Communities After White-nose Syndrome



A newly released study on [Post-White-nose Syndrome Bat Communities in the National Capital Region](#) describes 2016-2018 surveys of bat communities, changes seen since the onset of White-nose Syndrome (WNS), migration activity, hibernacula use, day-roosting habits of WNS-impacted species, and ongoing monitoring recommendations for NCA parks.

[Photo: Researchers check wings of a bat for evidence of exposure to white-nose syndrome (WNS) based on the amount of scarring. This bat shows a small amount of whitish spots that would be classified as a 1 on the 0 to 4 scale that measures WNS scarring. Credit: NPS/Mark Ford]

Nature News Roundup: ICYMI

In Case You Missed It (ICYMI), here's a roundup of nature news and resources from the last quarter that may be of interest to those working with natural resources in the National Capital Area. This includes articles from NPS press releases, new NPS web and social media content, [InsideNPS](#) (NPS internal), and the [NCA Resource Stewardship and Science Sharepoint](#) (NPS internal).



[Photo: Dr. Liz Matthews, NPS Ecologist and Program Manager for Inventory &

Monitoring. Credit: Jacob Fenston/DCist]

[Wolf Trap National Park Seeks Public Comments](#) (NPS news release: 11/18/2021)

[New Bioscience Special Section on the Resist-Accept-Direct \(RAD\) Framework Now Available](#) (InsideNPS: 11/17/2021)

[Rock Creek Park announces 2021-2022 deer management operations](#) (NPS news release 11/17/2021)

[The Sept/Oct 2021 Geospatial Insights Newsletter has been Released!](#) (InsideNPS: 11/15/2021)

[Winners of the 2020 Director's Awards for Natural & Cultural Resources](#) (InsideNPS: 11/5/2021)

[Native American Affairs in NCA](#) (NCA Resource Stewardship and Science Sharepoint: 11/4/2021)

[New National Christmas Tree planted in President's Park](#) (NPS news release: 10/30/2021)

[The July/August 2021 Geospatial Insights Newsletter has been Released!](#) (InsideNPS: 10/28/2021)

[How Scientists Removed Biofilm from the Jefferson Memorial Dome](#) (Washington Post: 10/22/2021)

[Deadline passed for National Internship Proposals.](#) (InsideNPS: 10/20/2021)

[Interpreting Climate Change Training on Nov. 10](#) (InsideNPS: 10/20/2021)

[The American Chestnut Was Wiped Out A Century Ago. Could It Make A Comeback?](#) (DCist: October 15, 2021) quotes Dr. Liz Matthews, NPS Ecologist and Program Manager for Inventory & Monitoring!

[Identifying Algal Toxins in National Park Waterways](#) (NPS news release: 10/14/2021)

[Everything at your fingertips: The IPM/Invasive Species Project Kit](#) (InsideNPS: 10/12/2021)

[Clean Air Excellence Awards - Apply Today!](#) (InsideNPS: 10/12/2021)

[Volunteers spruce up NCA parks on National Public Lands Day](#) (NCA Portal: 10/12/2021)

[Antietam National Battlefield Seeks Input on Plan to Improve Park Landscape Management Strategies](#) (NPS news release: 10/8/2021)

[Beech Leaf Disease Detected in NCA](#) (NCA Resource Stewardship and Science Sharepoint: 10/1/2021)

[NPS Connected Conservation \(C2\) Announces Fall Webinar Series on Corridors](#) (InsideNPS: 9/28/2021)

[Spotted Lanternfly in NCA \(sharepoint.com\)](#) (NCA Resource Stewardship and Science Sharepoint: 9/3/2021)

[New Water Balance Dataset and Analyses Available](#) (InsideNPS: 9/2/2021)

[Scientists in Parks Summer 2022 Call for Proposals Now Open](#) (InsideNPS: 9/1/2021)

NRS Field Work in Your Park

During winter (December - February), programs from the office of Natural Resources and Science (NRS) are preparing for 2022 monitoring and are still in parks doing the following field work:

Invasive Plant Management Team (IPMT) is preparing for the 2022 field season and can assist parks with winter **Weed Warrior projects**. IPMT field operations resume in late February with **treatment of lesser celandine** at Rock Creek Park. For more information about assistance with Weed Warrior Training and early spring treatments, please contact Alex Voznitza by NPS email.

I&M Forest vegetation monitoring. I&M staff will visit monitoring plots to prep them for the upcoming field season (e.g., painting trees, fixing broken tags, etc.)

I&M Water Monitoring occurs throughout the year on a bi-monthly basis at all I&M parks except C&O Canal.

Calendar

2021: DECEMBER

1. Science Forum: Smithsonian Agreement for Custodianship of NPS Natural History Collections. Kathleen Byrne, NPS Acting Chief Curator/Museum Registrar, Museum Management Program, will discuss the Smithsonian Agreement for Custodianship of NPS Natural History Collections Pros and Cons. 9:00-10:00 am ET. Contact Diane Pavek via NPS email.

2-3. [Maryland Water Quality Monitoring Conference.](#) Theme "Environmental Justice in a Time of Climate Change".

2022: JANUARY

4, 11, 18, and 25. Discuss recent Climate Change Research. Natural Resources and Science staff from parks and regional programs are invited to choose a piece of recent climate change research for all to read and discuss, in book-club style. 8:30-9:30 am. Contact Diane Pavek via NPS email. This series of discussions is tentatively planned for all Tuesdays of both January and February.

FEBRUARY

1, 8, 15, and 22. Discuss recent Climate Change Research. NRS staff are invited to choose a piece of recent climate change research for all to read and discuss, in book-club style. 8:30-9:30 am. Contact Diane Pavek via NPS email.

The **Natural Resource Quarterly** provides updates on the status of natural resources and science in the parks of Region 1 - National Capital Area.

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